

Listing and Status of the Claims:

Claims 1-16. Canceled.

Claim 17 (original). A method of manufacturing a high-pressure discharge lamp, comprising the steps of:

combining an electrode metal rod and a heat radiating coil into an electrode assembly with a dedicated jig;

placing said electrode assembly on a predetermined jig;

machining said electrode assembly with a YAG laser beam while said electrode assembly is in rotation, to turn the tip end of said coil into a solid of revolution with a smooth surface, leaving a central region of the tip end of the metal rod, thus producing a melted tip end; and

machining the left central region of the tip end of the metal rod into a nipple.

Claim 18 (new). A method of manufacturing a high-pressure discharge lamp according to claim 17, wherein the nipple is a noncylindrical nipple.

Claim 19 (new). A method of manufacturing a high-pressure discharge lamp, comprising the steps of:

combining an electrode metal rod and a heat radiating coil into an electrode assembly;

machining said electrode assembly and leaving a region of an end of said metal rod;

and

machining said region of said end of said metal rod into a nipple.

Claim 20 (new). A method of manufacturing a high-pressure discharge lamp according to claim 19, wherein the combination of the electrode metal rod and heat radiating coil into an electrode assembly is done with a jig.

Claim 21 (new). A method of manufacturing a high-pressure discharge lamp according to claim 19, wherein said electrode assembly is machined with a laser beam.

Claim 22 (new). A method of manufacturing a high-pressure discharge lamp according to claim 21, wherein the laser beam is a YAG laser beam.

Claim 23 (new). A method of manufacturing a high-pressure discharge lamp according to claim 19, wherein said electrode assembly is machined while it is in rotation.

Claim 24 (new). A method of manufacturing a high-pressure discharge lamp according to claim 23, wherein said electrode assembly is machined to turn an end of the heat radiating coil into a solid of revolution.

Claim 25 (new). A method of manufacturing a high-pressure discharge lamp according to claim 19, wherein the nipple is a noncylindrical nipple.